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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,457	04/05/2005	Jan Hofsteenage	1-32709A	3048

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CORPORATE INTELLECTUAL PROPERTY
ONE HEALTH PLAZA 104/3
EAST HANOVER, NJ 07936-1080

EXAMINER	
COOK, LISA V	

ART UNIT	PAPER NUMBER
1641	

MAIL DATE	DELIVERY MODE
05/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/530,457	HOFSTEENAGE ET AL.	
	Examiner	Art Unit	
	Lisa V. Cook	1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☒ Claim(s) *18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/5/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Status

1. Currently claims 1-19 are pending and under consideration.

Priority

2. If applicant desires priority under 35 U.S.C. 120 to application number **PCT/EP2003/011139 filed 8/10/03**, a specific reference to the earlier filed application must be made in the instant application. For benefit claims under 35 U.S.C. 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of the applications. This should appear as the first sentence of the specification following the title, preferably as a separate paragraph unless it appears in an application data sheet. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression *"now Patent No. _____" should follow the filing date of the parent application.* If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application.

If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii).

This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A priority claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed claim for priority under 35 U.S.C. 119(e), 120, 121 and 365(c).

The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

3. The instant application should be updated to include **PCT/EP2003/011139 filed 8/10/03**. Please add to the disclosure.

Information Disclosure Statement

4. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper."

Therefore, unless the Examiner on form PTO-892 or Applicant on form PTO-1449 has cited the references they have not been considered.

5. The information disclosure statement filed 05 October 2005 has been considered as to the merits prior to first action.

6. It is noted that the reference of Hofsteenge et al. (Biochemistry, 1994, Vol.33, pages 13524-13530) was submitted but not included on the PTO-892 form. Accordingly the reference has not been considered.

Specification

7. The use of the trademarks has been noted in this application. (.i.e. LIPOFECTIN on page 8, LEPTIN on page 14 and CENTRICON on page 22). They should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

8. The disclosure is objected to because of the following informalities: Page 1 is not numbered. Appropriate correction is required.

Sequence Non-Compliance

9. This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825 for the reason(s) set forth on the attached Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures. Applicant must comply with the requirements of the sequence rules (37 CFR 1.821 - 1.825) before the application can be examined under 35 U.S.C. §§ 131 and 132.

A. The specification recites sequences without including the appropriate sequence identification numbers. See Trp-x-x-Trp (WXXW) on page 2 & page 6 and AWAKWA on page 15, for example. Please add the corresponding sequence identification numbers.

B. Sequence identification number 1 appears to label various distinct amino acid compositions. For example, on page 7 it represents AWAQWA; on page 15 it represents AWAKWA, and on various other pages it represents linked compositions (see page 16, etc). A separate sequence identifier is required for each independent composition. The sequence and composition must match the sequences on the Sequence Listing and CRF. SEQ ID NO:1 on the listing is AWAKWA.

> (c) Patent applications which contain disclosures of nucleotide and /or amino acid sequences must contain, as a separate part of the disclosure, a paper copy disclosing the nucleotide and /or amino acid sequences and associated information using the symbols and format in accordance with the requirements of § § 1.822 and 1.823. This paper copy is hereinafter referred to as the "Sequence Listing. " Each sequence disclosed must appear separately in the "Sequence Listing. " Each sequence set forth in the "Sequence Listing " shall be assigned a separate sequence identifier. The sequence identifiers shall begin with 1 and increase sequentially by integers.

Applicant is given THREE MONTHS from the mailing date of this communication within which to comply with the sequence rules, 37 CFR 1.821 - 1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 CFR 1.821(g).

Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a). Direct the reply to the undersigned. Applicant is requested to return a copy of the attached Notice to Comply with the reply.

Claim Objections

10. Claim 18 is objected to because of the following informalities: the symbol © should be "(c)". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. In claim 1, the use of "C-mannosylated CMT substrate" is vague and indefinite because it is not clear how the substrate relates to the CMT and CMT substrate that are provided in step i). In particular it is not clear if the reagents will bind together to form "C-mannosylated CMT substrate" or will they act on "C-mannosylated CMT substrate" that has been added. It is suggested that the claim clearly set forth method steps identify each reagent and its action in the method to form the appropriate outcome, in order to obviate this rejection. Appropriate correction is required.

B. Claims 3 and 5 recite the limitation "said C-mannosylation" in claim 1. However, there is insufficient antecedent basis for this limitation in the claim. Claim 1 recites "C-mannosylated" not C-mannosylation. For consistency and clarity it is suggested that one term be utilized. Appropriate correction is required.

C. In claim 3 and 5 the use of "said substrate" is vague and indefinite because it is not clear as to which substrate Applicant intends. Two substrates are identified in claim 1; a CMT substrate and a C-mannosylated CMT substrate. Please clarify.

D. Claim 8 is vague and indefinite because it is not clear how the agent will be added and/or assessed in the method of claim 1. Accordingly the metes and bounds of the claim cannot be determined. Claim 8 does not include method steps to carry out the preamble. There is an absence of a resolution or correlation step, which reads back on the preamble of the claimed method. Please add the necessary steps in order to eliminate claim ambiguity.

E. Claims 13, 14 and 15 recite the limitation "said C-mannosylation" and "said substrate" in claim 9. However, there is insufficient antecedent basis for this limitation in the claim. Claim 9 does not recite "C-mannosylation" or "substrate". Appropriate correction is required.

F. Claim 18 is vague and indefinite in reciting "CMT gene" because it is not clear if Applicant intends to mean the animal comprises CMT or some other component of the "CMT gene". It is suggested that the claim merely recite "CMT" in order to obviate this rejection.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

I. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being obvious over Doucey et al. (Molecular Biology of the Cell, February 1998, Vol.9, pages 291-300) in view of Maggio (Immunoenzyme technique I, CRC press © 1980, pages 186-187).

Doucey et al. disclose assay procedures to measure CMT-mannosyltransferase. This is supported by the disclosure on page 2-3. Rat liver microsomes were used to C-mannosylate the N-terminal dodecapeptide from RNase 2 in vitro, with Dol-P-Man as the donor. This microsomal transferase activity was destroyed by heat and protease treatment.

In particular, labeled DPM or DOL-P-[^{3}H]Man (sugar donor), liver microsomes (Applicants CMT or transferase) and synthetic peptides containing the WXXW recognition site for CMT (Applicants CMT substrate) are mixed and the CMT substrate was measured. See page 292 1st column 1st paragraph and page 295 1st column. In one embodiment, CHO Lec15 cells and wild type cells expressed the CMT.

The CMT substrate is immobilized and measured with a specific antibody. See page 294 1st column 2nd paragraph.

Doucey et al. utilize the CMT and CMT substrate to form a C-mannosylated substrate. However, Doucey et al. differ from the instant invention in not specifically teaching C-mannosylated substrate immobilization (bound to solid support).

Nevertheless, Maggio disclose enzyme immunoassays wherein either the antigen or antibody (reagent) is immobilized onto a solid phase. The solid phase can be particles, cellulose, polyacrylamide, agarose, discs, tubes, beads, or micro plates (micro titer plates). See page 186. The reagents can be bound to the solid support by covalent linkage or passive adsorption (non-covalent means). See page 187 1st paragraph. Maggio taught that solid supports such as test strips "are very convenient to wash thereby reducing labor in assay procedures". Page 186, last line.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to immobilize reagents such as a C-mannosylated substrate on solid support surfaces as taught by Maggio in the assay method of Doucey et al. because Maggio taught that reagent immobilized solid support "are very convenient to wash thereby reducing labor in assay procedures". Page 186, last line. Absent evidence to the contrary the immobilization of reagents is deemed and obvious modification of the assays taught by Doucey et al.

II. Claims 6 and 7 are rejected under 35 U.S.C.103(a) as being unpatentable over Doucey et al. (Molecular Biology of the Cell, February 1998, Vol.9, pages 291-300) in view of Maggio (Immunoenzyme technique I, CRC press © 1980, pages 186-187) and further in view of Gonzalez de Peredo et al. (Molecular & Cellular proteomics, 1.1, pages 11-18, January 2002).

Please see Doucey et al. in view of Maggio as set forth above.

Doucey et al. in view of Maggio differs from the instant invention in not specifically teaching a fusion protein comprising the C-mannosylated substrate.

However, Gonzalez de Peredo et al. teach procedures to measure C-mannosylation. See abstract. Gonzalez de Peredo et al. teach that only a single mannosyl residue is added in the process of C-mannosylation and this makes it difficult to detect mannosylation in the intact proteins (fusion proteins). Therefore the isolation and analysis of relevant peptides is required. The peptides are subjected to proteolytic digestion and fractioned by reverse phase LC-MS. See page 12, 2nd column 1st paragraph. The peptides can be subjected to a second digestion with an appropriate protease when needed. See page 13 - 1st column. The yielded peptides can be evaluated for C-mannosylation. See page 14 – 2nd column.

It would have been prima facie obvious to one of ordinary skill in the art at the time of applicant's invention to utilize fusion proteins cleavable by a protease as exemplified by Gonzalez de Peredo et al. in the C-mannosylation detection method of Doucey et al. in view of Maggio because Gonzalez de Peredo et al. taught that only a single mannosyl residue is added in the process of C-mannosylation and this makes it difficult to detect mannosylation in the intact proteins (fusion proteins). Therefore the isolation and analysis of relevant peptides is required. See page 12, 2nd column 1st paragraph.

III. Claim 8 is rejected under 35 U.S.C.103(a) as being unpatentable over Doucey et al. (Molecular Biology of the Cell, February 1998, Vol.9, pages 291-300) in view of Maggio (Immunoenzyme technique I, CRC press © 1980, pages 186-187) and further in view of Jarreton et al. (Tetrahedron Letters, 1997, Vol.38, No.10, pages 1767-1770 and abstract).

Please see Doucey et al. in view of Maggio as set forth above.

Doucey et al. in view of Maggio differ from the instant invention in not specifically teaching an agent that modulates C-mannosyltransferase (CMT) activity.

However, Jarreton et al. teach procedures to study C-mannosylation promoted by samarium diiodie (agent). Mannosyl pyridylsulfones with varying C2-OH protecting groups were reacted with cyclohexanone in the presence of samarium diiodide. In the presence of samarium diiodide high yields of α-C-mannoside were obtained (activation). See abstract. Samarium diiodide produced a yield when the product was not previously detected (inactivation). See page 1769 1st paragraph. The researchers believe the result is obtained because it avoids sterical interaction with the sugar ring. See page 1770.

It would have been prima facie obvious to one of ordinary skill in the art at the time of applicant's invention to utilize an agent like samarium diiodie as taught by Jarreton et al. in the in the C-mannosylation detection method of Doucey et al. in view of Maggio because Jarreton et al. taught that in the presence of samarium diiodide high yields of α-C-mannoside were obtained (activation). See abstract. Samarium diiodide produced a yield when the product was not previously detected (inactivation). See page 1769 1st paragraph.

One of ordinary skill in the art would have been motivated to employ samarium diiodide in order to avoid steric interaction with the sugar ring. See page 1770.

IV. Claims 9-14 and 19 are rejected under 35 U.S.C.103(a) as being unpatentable over Doucey et al. (Molecular Biology of the Cell, February 1998, Vol.9, pages 291-300) in view of Jarreton et al. (Tetrahedron Letters, 1997, Vol.38, No.10, pages 1767-1770 and abstract).

Please see Doucey et al. as set forth above.

Doucey et al. differ from the instant invention in not specifically teaching an agent that modulates C-mannosyltransferase (CMT) activity.

However, Jarreton et al. teach procedures to study C-mannosylation promoted by samarium diiodie (agent). Mannosyl pyridylsulfones with varying C2-OH protecting groups were reacted with cyclohexanone in the presence of samarium diiodide. In the presence of samarium diiodide high yields of α-C-mannoside were obtained (activation). See abstract. Samarium diiodide produced a yield when the product was not previously detected (inactivation). See page 1769 1st paragraph. The researchers believe the result is obtained because it avoids sterical interaction with the sugar ring. See page 1770.

It would have been prima facie obvious to one of ordinary skill in the art at the time of applicant's invention to utilize an agent like samarium diiodie as taught by Jarreton et al. in the in the C-mannosylation detection method of Doucey et al. because Jarreton et al. taught that in the presence of samarium diiodide high yields of α-C-mannoside were obtained (activation). See abstract. Samarium diiodide produced a yield when the product was not previously detected (inactivation). See page 1769 1st paragraph.

One of ordinary skill in the art would have been motivated to employ samarium diiodide in order to avoid steric interaction with the sugar ring. See page 1770.

V. Claims 15 and 16 are rejected under 35 U.S.C.103(a) as being unpatentable over Doucey et al. (Molecular Biology of the Cell, February 1998, Vol.9, pages 291-300) in view of Jarreton et al. (Tetrahedron Letters, 1997, Vol.38, No.10, pages 1767-1770 and abstract) and further in view of Gonzalez de Peredo et al. (Molecular & Cellular proteomics, 1.1, pages 11-18, January 2002).

Please see Doucey et al. in view of Jarreton et al. as set forth above.

Doucey et al. in view of Jarreton et al. differ from the instant invention in not specifically teaching a fusion protein comprising the C-mannosylated substrate.

However, Gonzalez de Peredo et al. teach procedures to measure C-mannosylation. See abstract. Gonzalez de Peredo et al. teach that only a single mannosyl residue is added in the process of C-mannosylation and this makes it difficult to detect mannosylation in the intact proteins (fusion proteins). Therefore the isolation and analysis of relevant peptides is required.

The peptides are subjected to proteolytic digestion and fractioned by reverse phase LC-MS. See page 12, 2nd column 1st paragraph.

The peptides can be subjected to a second digestion with an appropriate protease when needed. See page 13 - 1st column. The yielded peptides can be evaluated for C-mannosylation. See page 14 – 2nd column.

It would have been prima facie obvious to one of ordinary skill in the art at the time of applicant's invention fusion proteins cleavable by a protease as exemplified by Gonzalez de Peredo et al. in the C-mannosylation detection method of Doucey et al. in view of Jarreton et al. because Gonzalez de Peredo et al. taught that only a single mannosyl residue is added in the process of C-mannosylation and this makes it difficult to detect mannosylation in the intact proteins (fusion proteins). Therefore the isolation and analysis of relevant peptides is required. See page 12, 2nd column 1st paragraph.

VI. Claim 17 is rejected under 35 U.S.C.103(a) as being unpatentable over Doucey et al. (Molecular Biology of the Cell, February 1998, Vol.9, pages 291-300) in view of Jarreton et al. (Tetrahedron Letters, 1997, Vol.38, No.10, pages 1767-1770 and abstract) and further in view of Spiro (Glycobiology, Vol.12, No.4, pages 43R-56R, 2002).

Please see Doucey et al. in view of Jarreton et al. as set forth above.

Doucey et al. in view of Jarreton et al. differs from the instant invention in not specifically teaching that the method is conducted in the presence of a GPI anchor.

However, Spiro teaches that a major carbohydrate-protein connection is the GPI anchor. In this bond Man is linked to phosphoethanolamine, which in turn is attached to the terminal carboxyl group of the protein. See page 47R 1st column 2nd paragraph.

It would have been prima facie obvious to one of ordinary skill in the art at the time of applicant's invention to provide a GPI anchor as taught by Spiro in the C-mannosylation detection method of Doucey et al. in view of Jarreton et al. because Spiro taught that a major carbohydrate-protein connection is the GPI anchor. In this bond Man is linked to phosphoethanolamine, which in turn is attached to the terminal carboxyl group of the protein. See page 47R 1st column 2nd paragraph.

VII. Claim 18 is rejected under 35 U.S.C.103(a) as being unpatentable over Doucey et al. (Molecular Biology of the Cell, February 1998, Vol.9, pages 291-300) in view of Miyagawa et al. (The Journal of Biological Chemistry, 2001 October 19, Vol. 276, No.42, pages 39310-9).

Please see Doucey et al. as set forth above.

Doucey et al. differ from the instant invention in not specifically teaching a transgenic animal model.

However, Miyagawa et al. teach procedures to generate several lines of transgenic mice and pigs that contain human beta-d-mannoside beta-1, 4-N-acetylglucosaminyltransferase III gene. See abstract. The use of transgenic animals is taught to be easy, leads to remodeling of the antigenicity, and is effective. See page 39319.

It would have been prima facie obvious to one of ordinary skill in the art at the time of applicant's invention to utilize transgenic animals as exemplified by Miyagawa et al. in the detection method of Doucey et al. because Miyagawa et al. taught that The use of transgenic animals is taught to be easy, leads to remodeling of the antigenicity, and is effective. See page 39319.

13. For reasons aforementioned, no claims are allowed.

14. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Group 1641 – Central Fax number is (571) 273-8300, which is able to receive transmissions 24 hours/day, 7 days/week. In the event Applicant would like to fax an unofficial communication, the Examiner should be contacted for the appropriate Right Fax number.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa V. Cook whose telephone number is (571) 272-0816. The examiner can normally be reached on Monday - Friday from 7:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le, can be reached on (571) 272-0823.

Any inquiry of a general nature or relating to the status of this application should be directed to Group TC 1600 whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see httpr//pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lisa V. Cook
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5/8/07

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